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AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,

HOBART, TASMANIA,

JANUARY 8, 1892.

Report of Committee No. 6.

THE FERTILISATION OF THE FIG IN THE AUSTRALASIAN COLONIES.

Members of Committee.—Mr. T. F. Cheeseman, Professor Haswell, Mr. Thomas Kirk, Baron von Mueller, Mr. Skuse, Professor Tate, Professor Thomas, Mr. C. French (Secretary).

THE CAPRIFICATION OF THE FIG.

OWING to a difficulty of getting Members together in order to draw up a progress report countenanced from all sides, it seems best that at the next time the Chairman and Secretary draw up early a statement of their own and circulate such amongst the Members, so as to enable them to give their views on the subject. The Chairman of the Caprification Committee had, at the meeting in Christchurch, given a lengthy verbal explanation of the present state of the question allotted to our investigation, and since then not much information of a reliable nature has been forthcoming from any particular country, except that in California measures had been taken for acquiring there living plants of the Capri Fig by sending a special emissary to Smyrna with a view of introducing the *Blastophaga grossorum* into California, and that this course had also for Australia been recommended at the New Zealand meeting, and, further, that Mr. C. French, the Government Entomologist of Victoria, had initiated some similar measures for Victoria by opening up a correspondence with the British Consul in Smyrna.

The Committee really thinks that similar united efforts should be made from all the Australian colonies if the results

obtained at San Francisco should prove sufficiently encouraging to our expectations, namely, that a superior fig for drying could be produced by the caprification method. It seems, therefore, that every opportunity should be seized upon to gain also from other fig-producing countries, either by the issuing of circular letters or by other means, the most recent data as regards the production of the best kind of figs for drying. It must be remembered that the clever fig-growers of Asia Minor continue to adhere to the system of artificial fertilisation by means of the insect peculiar to the fig, and that it would seem incredible in this enlightened age that these people should still resort to the ancient method, at considerable trouble and expense, if no advantages whatever could be derived from it.

The question, it would seem, simply resolves itself to this : Is the production of the best kinds of dried figs, such as fetch the highest prices in commerce, solely dependent on some few select varieties, cultivated in specially adapted regions, in peculiar soil, and under particular methods for manuring and watering, as all these conditions are likely to be found in many parts of Australia also. In that case the caprification process would simply rest on inveterate prejudice.

On the other side, it is incumbent on us to demonstrate, with the great prospect of fig-production also for drying in these colonies, how far the action of the *Blastophaga* does really affect the constitution of particular varieties of figs, as it seems quite within the range of possibility that to some sorts of fig the pollination may prove of distinct advantage, and to others not. (See Gasfarrini, Researches on Fig and Capri Fig, 1845 to 1860). This seems clearly to demonstrate that the enigma could best be solved if the Agricultural Departments of the different colonies would unite in finding the means—not necessarily very costly—of sending an expert who, by autopsy, could investigate the question by spending a season in Asia Minor amongst the fig-growers there. If speedy action of this kind, on a recommendation of the Hobart meeting of the Australasian Association, be taken, we might then have the results ready in time for the Adelaide meeting, and the conclusions arrived at would probably be final.

Should the horticulturist who may be entrusted with this mission be convinced by local inspection that the fertilisation of the fig is decidedly recommendable, whether through the physiologic stimulus thereby given or by some other yet

obscure cause, then we could secure for the Australian colonies a supply of plants of the caprification fig in an ova-bearing state, as the mere raising staminate fig-trees from seeds, or their importation in a living state, would be of no avail, just as has been the case in California; for we could of course easily obtain seedlings of the staminate fig-tree from carefully preserved seeds of the Smyrna fig.

All the plants examined by us from Australia were pistillate only. The researches of Count Solms Laubach, Director of the Botanical Gardens of Strasburg, and Brigade-Surgeon Dr. King, Director of the Botanical Gardens of Calcutta, have cleared up within the last few years all doubts about the functions of the staminate, pistillate, and neuter flowers in the cultivated fig *Ficus carica*, so that we now know why only the caprification fig is fit for a deposition of the ova of *Blastophaga grossorum*, or, as it was formerly called, *Cynips psenes*. Much valuable information on this subject may be obtained also from Gustav Mayer's work on insects inhabiting various species of *Ficus*.

The Chairman has placed himself in communication with Professor Hillgard, of the Rural Experimental Station of Berkely, California, and with Captain Ellwood Cooper, the most enterprising of all fruit-growers, and President of the Californian State Board of Horticulture, Santa Barbara, to elicit information about the movement set going in reference to the caprification in California, so that in Australia we might be early benefited from these experiments and any results arising from them.

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